

WHAT IS CLAIMED IS:

1. An ink jet recording apparatus comprising:

an ink jet recording head mounted on a carriage for jetting ink droplets in accordance with print data; and

5 a capping device for capping a nozzle forming surface of the recording head;

wherein when the carriage is moved to a mount portion where the capping device is mounted, the capping device is moved toward the nozzle forming surface of the recording head by receiving a driving force which moves the carriage, so that
10 the capping device caps the nozzle forming surface; and

a stopping position of the carriage in the mount portion of the capping device is adjusted based on adjustment information of a platen gap adjuster.

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2. An ink jet recording apparatus according to claim 1, the capping device including

a slider which is moved toward the recording head by receiving at least the driving force which moves the carriage,

20 and

a cap member mounted on the slider for capping the nozzle forming surface of the recording head,

wherein when the carriage is moved, the driving force which moves the carriage is transmitted from a side of the

carriage to a side of the slider through a driving force transmitting device which abuts against the slider.

3. An ink jet recording apparatus according to claim 2,
5 wherein the slider is moved toward the recording head being attached to a link arm rotatably mounted on a frame by receiving the driving force of the carriage through the driving force transmitting device; and

10 a guide projection formed on the slider is slid along a guide groove formed in the frame in an inclined manner, whereby the slider is moved toward the recording head.

4. An ink jet recording apparatus according to claim 3, further comprising:

15 a regulating device for retaining the guide projection formed on the slider at a predetermined position in the guide groove based on the adjustment information of the platen gap adjuster.

20 5. An ink jet recording apparatus according to claim 1, wherein a flushing position where the capping device is located opposite to the nozzle forming surface of the recording head with a predetermined interval and a capping position where a nozzle forming surface of the recording head is capped by the

capping device, are set based on adjustment information of the platen gap adjuster.

6. An ink jet recording apparatus according to claim 5,
5 wherein in the case that the adjustment information of the platen gap adjuster indicates that a platen gap is small, the guide projection formed on the slider is regulated to be retained at a lower position within the guide groove formed in the frame under inclined condition at each of the flushing position and the capping position, as compared with such a case that the adjustment information of the platen gap adjuster indicates that a platen gap is large.

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7. An ink jet recording apparatus according to claim 5
15 wherein the ink jet recording apparatus is arranged in such a manner that the regulating operation for retaining the guide projection at a predetermined position in the guide groove is performed by stopping a drive operation of a carriage motor for moving the carriage in the reciprocation motion.

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8. An ink jet recording apparatus according to claim 2, wherein a spring member is interposed between the slider and the cap member; and

the cap member abuts against the nozzle forming surface

of the recording head by receiving a urging force of the spring member in a state that the nozzle forming surface is capped by the capping device.

- 5 9. A moving position control method of a capping device adapted to an ink jet recording apparatus comprising an ink jet recording head mounted on a carriage for jetting ink droplets in accordance with print data, and the capping device capable of capping a nozzle forming surface of the recording head, wherein when the carriage is moved to a mount portion where the capping device is mounted, the capping device is moved toward the nozzle forming surface of the recording head by receiving driving force of the carriage,

10 the moving position control method comprising the steps of:

15 judging a flushing requirement as to whether or not the flushing operation is required;

acquiring a platen gap adjustment information from a platen gap adjuster if the flushing operation is required;

20 adjusting an interval between the nozzle forming surface of the recording head and the capping device at a flushing position by controlling the moving position of the carriage to a mount portion of the capping device based on the platen gap adjustment information; and

flushing ink droplets from the recording head into the capping device, while maintaining the interval.

10 A moving position control method according to claim 9
5 wherein a judgement of the flushing requirement is started based on a time counting operation of a flushing timer which is managed while print operation of the recording apparatus is carried out.

10 11. A moving position control method of a capping device adapted to an ink jet recording apparatus comprising an ink jet recording head mounted on a carriage for jetting ink droplets in accordance with print data and a capping device for capping a nozzle forming surface of the recording head,
15 wherein when the carriage is moved to a mount portion where the capping device is mounted, the capping device is moved toward the nozzle forming surface of the recording head by receiving driving force of the carriage,

the moving position control method comprising the steps
20 of:

judging a capping requirement as to whether or not the ink jet recording head is required to be advanced to a capping condition;

acquiring a platen gap adjustment information from a

platen gap adjuster if the capping operation is required; and
controlling the moving position of the carriage to a mount
portion of the capping device based upon the platen gap
adjustment information.

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12. An ink jet recording apparatus comprising:

an ink jet recording head mounted on a carriage for jetting
ink droplets in accordance with print data; and

flushing control unit for moving the recording head to
a flushing area and for applying a drive signal irrespective
of a printing operation to the recording head so as to flush
ink droplets into the flushing area;

wherein when a flushing operation is carried out in the
flushing area, the flushing control unit adjusts an ink jetting
amount of one dot during the flushing operation based upon
adjustment information of a platen gap adjuster.

13. An ink jet recording apparatus according to claim 12,
wherein in the case that the adjustment information of the
platen gap adjuster indicates that a platen gap is large, the
flushing control unit increases the ink amount of one dot which
is jetted while the flushing operation is carried out, as
compared with that of such a case that the adjustment
information of the platen gap adjuster indicates that the

platen gap is small.

14. An ink jet recording apparatus according to claim 13,
wherein in the case that the adjustment information of the
5 platen gap adjuster indicates that a platen gap is large, the
flushing control unit decreases a total number of ink droplets
which are jetted from the recording head while a single flushing
step is carried out, as compared with that of such a case that
the adjustment information of the platen gap adjuster indicates
10 that the platen gap is small.

15. An ink jet recording apparatus according to claim 12,
wherein the ink droplets jetted from the recording head by
executing the flushing operation are received by capping a
15 nozzle forming surface of the recording head.

16 A flushing control method executed in an ink jet recording
apparatus comprising an ink jet recording head mounted on a
carriage transported in a reciprocation motion, for jetting
20 ink droplets in accordance with print data and flushing control
unit for moving the recording head to a flushing area and for
applying a drive signal irrespective of a printing operation
to the recording head so as to flush ink droplets into the
flushing area, the flushing control method comprising the steps

of:

a flushing requirement judging step for judging as to whether or not the flushing operation is required;

an ink amount setting step for setting an ink jetting
5 amount of one dot during a flushing operation based on platen gap adjustment information in such a case that the flushing requirement judging step judges that the flushing operation is required; and

10 a flushing step for flushing ink droplets with respect to a flushing area based upon the ink jetting amount of one dot which is set in the ink amount setting step.

17. A flushing control method according to claim 16, wherein
15 in the case that the ink jetting amount of one dot during the flushing operation is set in the ink amount setting step, a total number of ink droplets which are jetted from the recording head within a single flushing step is set at the same time.

18. A flushing control method according to claim 16, wherein
20 the flushing requirement judging step is carried out based upon a time counting operation of a flushing timer which is managed while print operation of the recording apparatus is carried out.